The sexual behaviour and knowledge about AIDS in a group of young adolescent girls in Leeds

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Abstract

A questionnaire was given to 56 sexually active girls 12–16 years old, in a juvenile assessment centre or attending a genitourinary medicine clinic. Sexual behaviour, drug use, contraceptive practice and knowledge and attitudes about AIDS were evaluated. The girls were similar in demographic characteristics from both centres and were regarded as one group. Sexual experience ranged from 1 partner ever to 70 clients/week; 19 girls had contracted a sexually transmitted disease at some time. Half had never used a contraceptive. Twenty eight had used illicit drugs, with two girls experimenting with intravenous misuse. Misconceptions about modes of transmission of HIV were common, but most girls knew some basic facts about the virus. Most girls realised they were at risk, were anxious about contracting HIV infection in the future, but had not modified their behaviour in terms of condom usage. This study indicates that high risk adolescents need to be targeted for effective health education in order to modify behaviour patterns which put them at risk of acquiring HIV in the future.

Introduction

Information about the incidence and prevalence of sexually transmitted diseases (STD) in young teenagers in the United Kingdom is sparse. The incidence of gonorrhoea has been suggested as an index of sexual promiscuity[1] and a fall in the figures has been noted in returns from genitourinary medicine (GUM) clinics in the United Kingdom for both sexes over 16 years of age in recent years. The incidence in the under 16 year olds of both sexes has remained unchanged[2] and recent studies have shown high rates of infection in teenagers attending GUM clinics[3] and in girls in local authority care.[3] The knowledge and attitudes of this group about infection and their sexual behaviour are clearly important in the control of such diseases. Studies in the United Kingdom have not been directed at young adolescents, or did not stratify their results by age. Although AIDS and HIV infection are uncommon in teenagers,[5] heterosexual transmission was the most common route identified in American girls aged 13–19 years with AIDS.[6] The experimentation of this age group with drugs and sex render them liable to infection. This study aims to assess the sexual behaviour, knowledge and attitudes about AIDS in a group of sexually active adolescent girls.

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Subjects and Methods

The study was conducted between January 1988 and March 1989. Girls aged 16 years or under who were sexually active were eligible for inclusion. Sixty sexually active girls were seen in the study period, either at a juvenile assessment centre (Westwood Grange) or in the Genitourinary Medicine clinic at the General Infirmary at Leeds.

Thirty five girls were seen at the assessment centre. Girls are sent there because of severe behavioural problems, including truancy, absconding from care and prostitution. The remaining 25 girls were seen at the Department of Genitourinary Medicine and attended because of alleged underage sexual intercourse, assault or for routine clinical checkups.

A detailed questionnaire was designed to enquire about sexual behaviour, drug misuse, contraceptive practice and to assess knowledge about HIV and AIDS. Each girl had an initial medical evaluation. The form was then completed in private, and was discussed during a subsequent interview with an experienced Health Advisor to assist with any problems. Four girls did not complete the questionnaire and were therefore excluded from further analysis. Statistical analysis was performed using Mantel-Haenszel stratified analysis and Kruskai-Wallis one way analysis of variance.

Results

Characteristics of the group

There was a total of 56 girls whose median age was 15 years (mean 14·8, range 12–16). Seven of the girls seen at the assessment centre admitted to prostitution; there were no significant differences in demographic details of the girls at both centres and the results were pooled into one group. Most of the group (70%) had been in local authority care at some time; 10% of the group had been in foster care at some time; 25% lived at home.

Ninety three percent were Caucasian, 5·4% were Afro-Caribbean, and 1·8% of mixed race.

Five of the girls were educated in residential care, 35 were educated in the assessment centre and the remainder attended local comprehensive schools.

Responses to the questionnaire

Drug history

Cigarette smoking was almost universal (95%) and 43% had smoked cannabis. Two girls had experimented with intravenous drugs (1 each with amphetamine and heroin) but were not regular misusers. Six girls had tried solvent. Although alcohol intake was not specifically assessed, many girls admitted to intoxication as a factor leading to sexual intercourse.

Knowledge about sex

Most of the girls (61%) quoted friends as the source of their knowledge about sex, with teachers and parents (35%) in equal regard. Thirty five girls (62%) said they would seek advice from the family doctor.

Contraceptive usage

The general level of knowledge about contraceptives was high, with 92% able to name at least one method. Half the group had actually used contraception of any kind, but often disclosed to the Health Advisors that this was not on a regular basis. Only 21 (37·5%) had used condoms at some time. Forty four girls (78%) expressed an intention to use condoms in the future, and 55% thought their boyfriend would use condoms if asked. The seven girls (12·5%) admitting to prostitution generally used condoms with clients, but did not if they were in financial hardship or if clients paid more. Their regular boyfriend would invariably insist on unprotected intercourse.

Sexual history

The median age of first sexual intercourse was 13·2 years (range 7–16 years, SD 1·91). Those girls who had intercourse under 11 years (23%) alleged sexual abuse. There was a wide range of sexual experience, with between 1 life partner ever and 70 clients per week. If the 7 prostituting girls are excluded, the mean number of lifetime partners was 4·86 (mode 2, range 1–80, SD 11·61), and the mean number of partners over the previous 3 months was 1·22 (mode 1, range 0–6, SD 0·96). Nine girls (16%) admitted to having casual sexual partners. The majority (69%) enjoyed having intercourse, but 12·5% agreed to sex only because their boyfriends wished it.

Sexually transmitted diseases and pregnancies

There was a total of 19 girls who had contracted an STD at some time. The diagnoses are listed in table 1. There were 3 girls in the group (5·4%) who had ever been pregnant; 2 had undergone 2 terminations of pregnancy, and the other girl had 1 termination and 1 spontaneous abortion.

Knowledge about AIDS

Sources of information about AIDS quoted by the girls are listed in table 2. There was only 1 girl who quoted teachers as a source of information. The fear of acquiring AIDS was high; 80% agreed they felt at personal risk of infection.

There were 17 questions asking for factual knowledge about AIDS and HIV infection. These were scored at +1 for correct, 0 for incorrect or don't know. The mean score of the group was 13 (Range 6–17). Those questions testing factual knowledge about HIV and AIDS were answered well in general, (table 3) but those about transmission revealed some gaps in the group's knowledge. In particular, there was confusion about giving blood for a blood test, and social contacts of AIDS patients.

The test scores were assessed in relation to various factors in the group (age, casual sex, whether they had read the government AIDS leaflet, prostitution, previous STD and site of interview). Insufficient detail was obtained about educational attainment, and this was excluded from analysis. The test scores were grouped into high (n = 37) if the girls scored 13 or more and low (n = 19) if they scored 12 or less. Stratified analysis showed no significant differences between the high and low scoring groups.

Table 1 Sexually transmitted diseases

	Number	*Percentage*
Episodes of Sexually Transmissible Diseases		
Ever had STD	19	33·9
Never had STD	37	66·1
Total	56	100·0
*Frequency of STDs within the Group**		
Gonorrhoea	6	10·7
Trichomoniasis	5	8·9
Chlamydial infection	4	7·1
NSGI (chlamydia negative)	4	7·1
Pelvic inflammatory disease	3	5·4
Genital warts	3	5·4
Pediculosis pubis	2	3·6

*May be more than one infection per individual

Table 2 Sources of knowledge about sex and contraception n = 56; more than one source may be quoted by an individual

Source	*No*	*Percentage*
(a) Sex Education		
Friend	34	60·7
Parent	20	35·7
Teacher	18	32·1
Books	11	19·6
(b) Contraception		
Family doctor	35	62·5
Family planning clinic	31	55·4
Friend	7	12·5
Chemist	2	3·6

Discussion

SEXUAL BEHAVIOUR

This group of girls is clearly not typical of British schoolgirls. They have social and behavioural problems never experienced by most teenagers. It is extremely difficult to assess the sexual behaviour of "average" schoolchildren. Access to interview adolescents has been restricted because of fears in the teaching profession of parental or media disapproval. A recent survey by Hill in a mixed school illustrated several problems.[7] Fifth and sixth formers were approached, but very few boys responded and had to be excluded. Out of 133 girls, 41% had sexual intercourse; of the sexually active girls, over half (21% overall) experienced sexual intercourse under 16.

Knowledge about sexual behaviour in adolescent boys is very difficult to obtain. We had only two boys under 16 attending the genitourinary medicine clinic during the study period, and have limited access to a corresponding male assessment centre in Leeds. Delinquent boys deserve closer study in the future. In a recent study of 11–18 year olds attending GUM clinics, Thin *et al*[3] found that only 13·2% of the patients used condoms with a casual sexual partner and only 66% of the girls used any form of contraception.

American studies[8–10] report the trend for earlier initiation of sexual intercourse and increased number of sexual partners in adolescents. Teenage AIDS cases in the USA are predominantly black or Hispanic boys, from deprived urban areas, and acquired their infection from sexual contact or drug misuse.[6] Increased prevalence of STD in deprived areas may facilitate the spread of HIV, particularly in association with genital ulceration.[11] In England, Wales and Northern Ireland, to April 1989, 21 teenagers between 15 and 19 years had contracted HIV or AIDS via heterosexual contact (Gill, PHLS Communicable Diseases Surveillance Centre; personal communication). It is likely that the factors described in the American experience may apply in the UK, and particularly in the study group. Some of the girls solicit in deprived areas and have steady relationships with men from ethnic minorities who are regular drug misusers. The high rate of STD in the group is an additional cause for concern.

KNOWLEDGE ABOUT HIV AND AIDS

In our group, there was some knowledge about the facts about AIDS and HIV infection, but misconceptions about the risks of social contact with people with AIDS and methods of transmission. Over 80% of the group felt fear about AIDS, and 35% felt themselves to be at risk of acquiring the infection. Television was the most commonly quoted source of information about AIDS. Only one girl mentioned teachers as a source of information, but this may reflect the disjointed educational experience of the group. In visits to local middle class schools our Health Advisors have found similar levels of knowledge and ignorance about AIDS in well-educated 14 year olds.

Table 3 Factual knowledge about AIDS

Question	*Yes*	*%*	*No*	*%*	*Don't know*	*%*
Is AIDS caused by a virus?	37	(66·1)	10	(17·9)	9	(16·1)
Can anyone get AIDS?	52	(92·9)	3	(5·4)	1	(1·8)
Do all gay men have AIDS?	2	(3·6)	46	(82·1)	8	(14·3)
Can you be infected and not know?	42	(75·0)	3	(5·4)	11	(19·6)
Is there a vaccine against AIDS?	1	(1·8)	43	(76·8)	12	(21·4)
Can you get AIDS from:						
Masturbation	1	(1·8)	47	(83·9)	8	(14·3)
Touching	5	(8·9)	45	(80·4)	6	(10·7)
Kissing	11	(19·6)	36	(64·3)	9	(16·1)
Shaking hands	2	(3·6)	52	(92·9)	2	(3·6)
Giving blood	37	(66·1)	15	(26·8)	4	(7·1)
Toilet seat	6	(10·7)	38	(67·9)	12	(21·4)
Transfusion	43	(76·8)	5	(8·9)	8	(14·3)
Sex with non-infected person	7	(12·5)	40	(71·4)	9	(16·9)
Same room	2	(3·6)	53	(94·6)	1	(1·8)
Sharing a needle	54	(96·4)	0	(0·0)	2	(3·6)
Sharing a hairbrush	1	(1·8)	51	(91·1)	4	(7·1)
Visiting the doctor	8	(14·3)	37	(66·1)	11	(19·6)

BEHAVIOUR MODIFICATION

It is now realised that American adolescents have not changed their sexual practices or methods of contraception as a result of the AIDS epidemic.[9 12 13] Our survey indicates that the same may be true of some British teenagers.

Current projections about the AIDS epidemic in this country[14] indicate that the major route of transmission by the turn of the century will be via heterosexual intercourse. We have the opportunity now to wield our major weapon against HIV, prevention through education. The Health Education Authority in the UK, and the Centers for Disease Control in the USA[15] have many schemes in progress. We must attempt to alter entrenched patterns of sexual behaviour that are prevalent in our teenage population and specifically target those that we have demonstrated to be most at risk.

This study of the sexual behaviour, attitudes and knowledge about AIDS of young adolescent girls in residential care or attending the Genitourinary Medicine clinic in Leeds demonstrates that although they have some knowledge about HIV and fear infection, they have well established patterns of high risk behaviour coupled with drug and alcohol abuse.

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